5.) Equivalent to DE 2544903

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(19)

(54) SEALING CAPS

(71) We, SIGMA-TAU INDUSTRIE FARMACEUTICHE RIUNITE S.p.A., an Italian company having its offices at Viale Shakespeare 47, Rome, Italy, do hereby declare the invention for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention concerns sealing caps for receptacles such as bottles or jars.

According to the invention, there is provided a sealing cap for a receptacle, comprising a first cylindrical portion having a first end for receiving therein the neck of the receptacle, a second cylindrical portion which is of smaller diameter than the first cylindrical portion and which is disposed at the second end of the first cylindrical portion, an easily rupturable connection between the first and second portions which extends only partly around the circumference of the cap thereby defining a non-rupturable connecting section between the first and second cylindrical portions, and an easily rupturable line which extends substantially in the axial direction of said first cylindrical portion from one end of said easily rupturable connection to said first end of said first cylindrical portion, said easily rupturable line thereby defining an axially extending edge of said connecting section.

A cap according to the present invention will hereinafter be described by way of example with reference to the attached drawings, which illustrate one preferred embodiment of the cap. In the drawings:—

Figure 1 is a side view of the cap in blank form,

Figure 2 is a sectional view of the Figure 1 cap blank.

Figure 3 is a top view of the Figure 1 cap blank.

Figure 4 is a side view of the cap during the initial stage of a cap opening operation, and

Figure 5 is a perspective view of the cap during the final stage of the cap opening operation.

The cap is made of any suitable material such as metal and comprises a first cylindrical portion 1 which forms the lower part of the cap, and a second cylindrical portion 2 which forms the upper part of the cap. The cylindrical portion 1 is of larger diameter than the cylindrical portion 2, and has the function of securing the cap on the receptacle, in that a bottom rim portion of the portion 1 is turned under a flange on the neck of the receptacle to crimp the cap into position. A circumferential scored line 4 extends partly around the cap at the junction between the two portions, and terminates with an unscored section 3. Connecting portions or bridges disposed along the line 4 are denoted at 5. The portion 1 has a scored line 6 which extends in the axial direction of the portion 1 and which is thus perpendicular to one end of the scored line 4. The top of portion 2 has a grooved area 7 diametrically opposite the unscored section 3.

The above-described cap is used as follows: by exerting upward pressure with the thumb on the grooved area 7 of the upper portion 2, the connecting portions 5 are broken, thus detaching the portion 2 from the portion 1 along the scored line 4, but leaving the unscored section 3 intact. By pulling the upper portion 2, the lower portion 1 is opened along the scored line 6, thus releasing the neck of the receptacle from the lower portion 1, leaving the portion 1, which is now in the form of a strip, and the portion 2, joined together by the unscored section 3. Where a stopper is inserted in the neck of the receptacle, the

upper portion 1 has the supplementary function of protecting the stopper.

In another embodiment of the cap, there is a second scored line which extends parallel to the line 6 in Figure 1 and which connects to the other end of the line 4. By exerting upward pressure on the grooved area 7 of the upper portion 2, the connecting portions 5 break causing the portions 1 and 2 to become detached from each other along the scored line 4, but leaving the unscored section 3 intact. By pulling the upper portion 2 the portion 2 becomes severed from the portion 1 along the scored line 6 and along the second scored line (not shown). As a result the portion 2 becomes detached from the portion 1 together with the section of the lower portion 1 located below the unscored section 3, thus enabling the remaining portion of the cap, viz the lower portion 1, to be easily removed from the neck of the receptacle.

Advantageous features of the illustrated cap include greatly facilitated automatic application, greater protection from wilful or unwilful tampering and greater practicality in opening.

WHAT WE CLAIM IS:—

1. A sealing cap for a receptacle, comprising a first cylindrical portion having a first end for receiving therein the neck of the receptacle, a second cylindrical portion which is of smaller diameter than the first cylindrical portion and which is disposed at the second end of the first cylindrical portion, an easily rupturable connection between the first and second portions which extends only partly around the circumference of the cap thereby defining a non-rupturable connecting section between the first and second cylindrical portions, and an easily rupturable line which extends substantially in the axial direction of said first cylindrical portion from one end of said easily rupturable connection to said first end of said first cylindrical portion, said easily rupturable line thereby defining an axially extending edge of said connecting section.

2. A cap according to claim 1 including a second easily rupturable line which extends parallel to the first-mentioned easily rupturable line.

3. A cap according to claim 1 or claim 2 wherein the second cylindrical portion has on a top surface remote from said first cylindrical portion a grooved area which is disposed diametrally opposite said connecting section.

4. A cap according to claim 1, claim 2 or claim 3 wherein said easily rupturable connection and the or each said rupturable line each comprises a respective scored line.

5. A cap according to claim 4 including one or more bridges spaced along the scored line forming said easily rupturable connection.

6. A sealing cap for a receptacle, substantially as hereinbefore described with reference to the accompanying drawings.

7. The combination of a receptacle and a sealing cap according to any one of the preceding claims, which is crimped on to the neck of the receptacle.

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1 478558 COMPLETE SPECIFICATION
1 SHEET

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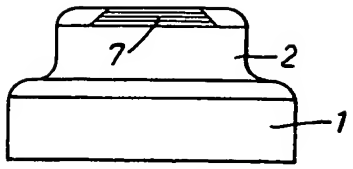

FIG. 1

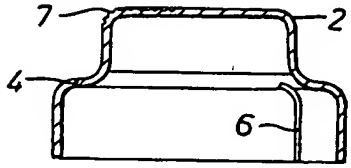

FIG. 2

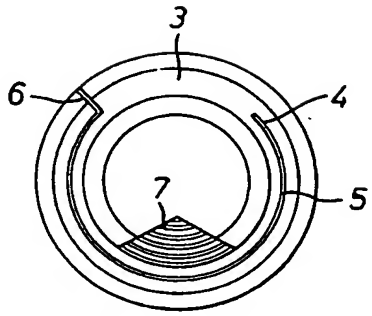

FIG. 3

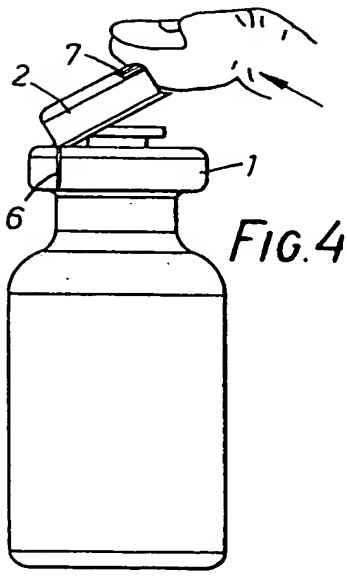

FIG. 4

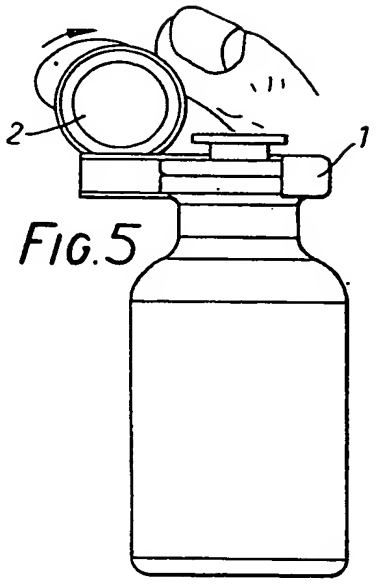

FIG. 5